PHMC Lessons Learned **Fluor Hanford Inc.**

Information Bulletin

Title: New Information May Affect Safety Analysis Documents

Date: October 2, 2006

Identifier: 2006-RL-HNF-0040

Lessons Learned Summary: New information related to previously analyzed safety systems must be evaluated against approved safety analysis documents to ensure the information has been appropriately addressed. Recently a memorandum from the U.S. Department of Energy - Savannah River Operations Office identified new information which challenged the assumption that oxygen consuming reactions within the DOE-STD-3013 containers would preclude the presence of oxygen and associated pressurization.

Discussion of Activities: Recently, a memorandum from DOE-Savannah River provided information including a brief history behind standard DOE-STD-3013, “Criteria for Safe Storage of Plutonium Metals and Oxides” and additional technical information. An assumption is stated in the technical basis documentation that oxygen-consuming reactions would preclude the presence of oxygen which would cause "significant pressurization." However, new information challenges the assumption that oxygen will not exceed the flammability limit because of these oxygen-consuming reactions. Based on this new information it was determined that the potential for oxygen generation in 3013 containers at Hanford had not been analyzed or adequately addressed. And, as a result, a Potential Inadequacy in the Safety Analysis was declared. After an evaluation was performed it was determined that no corrective actions were necessary beyond updating the safety analysis documentation.

Analysis: NA

Recommendations: Facilities should seek out and use new information from around the DOE complex and, when necessary, analyze existing safety basis documents to determine if any changes are necessary.

Cost Savings/Avoidance: Not determined

Work Function: Authorization Basis, Material - Handling/Storage, Nuclear Safety, Packaging and Transportation

Hazards: Personal Injury/Exposure - Radiation/Contamination/Toxic Material

Keywords: Authorization Basis, Nuclear Safety, Unreviewed Safety Question, Packaging and Transportation

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References: EM-RL--PHMC-PFP-2006-0026; Potential for oxygen generation in 3013 containers not analyzed in safety analysis (USQ)

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